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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gregory Charles Mission

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EXAMINER

SPURLOCK, BRETT SHANE

ART UNIT

PAPER NUMBER

4136

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,878	Applicant(s) MISSION, GREGORY CHARLES	
	Examiner BRETT SPURLOCK	Art Unit 4136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>3 NPL documents</u> . |

Disposition of Claims

Claims 1-8 are pending. Claims 9 and 10 have been cancelled by applicant's Preliminary Amendment filed on February 21, 2006.

Drawings

1. The drawings are objected to because there appear to be multiple instances of mislabeling and/or features described in the specification that are not properly represented in the drawings. For example, reference characters "13" and "15" have both been used to designate what appears to be the support structure; it appears that the reference character "15" is correct and "13" is incorrect. If that is the case then it follows that "13" has been mislabeled as an "airlock." As per the specification, the internal, external and outer manifolds are all labeled "8". Additionally, the characters "6", "9", "16", and "21" are included in the drawings but have not been described in the specification. In general, the labeling of the drawing should be reviewed for clarity. The corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

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Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 2 objected to because of the following informalities: the word "means" appears to have been spelled in the section that states, "and wherein the detritusing. neans deposits" or there was a problem with the original document when it was scanned. Appropriate correction is required.
3. Claim 5 objected to because of the following informalities: "form" should be spelled "from". Appropriate correction is required.
4. Claim 6 objected to because of the following informalities: "utilising" should be spelled "utilizing". Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 3 recites the limitation "the tower" lacks antecedent basis. Appropriate action is required.
7. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

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applicant regards as the invention. Claim 7 does not have clearly defined meets and bounds as it refers to two apparatus in claim 1, however, there is only one apparatus therein. Claim 8 is rejected for depending on 7.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Budd et al (US Pat 2,982,655).

Claim 1:

A cheese processing apparatus comprising an elongate upright drainage column including inlet means adapted to charge the column with either cheese coagulum or detritused cheese to form a pillar of cheese therein (Budd et al, Fig 1, element 11 and col. 1, lines 42-48) and incorporating as a lower end outlet thereof means for detritusing the leading edge of the pillar of cheese as it descends from the column to remove a quantity of cheese and simultaneously form therefrom a quantity of particulate cheese and deposit such particulate cheese onto transporting means for feeding the quantity of particulate cheese to downstream processing means (as the "means for detritusing" is described in the specification of the application, the claim calls for a rotating cutting device which is met by all of Fig 2 from Budd et al).

Claim 5:

A method of processing cheese milk into cheese comprising the substantially continuous steps of charging the column of an apparatus as claimed in claim 1 with a quantity of coagulum (Budd et al Fig 1, element 11), allowing sufficient residency time therein for the coagulum to fuse to form a pillar of cheese (Budd et al Fig 1, element 12, specifically the fact that cheese is more dense at the bottom than at the top and that it will take some fixed minimal time for the material at the top to make its way to the bottom), allowing the pillar of cheese to descend the column to contact the detritising means and thereby removing cheese from the pillar and

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simultaneously forming a quantity of particulate cheese and depositing the quantity of particulate cheese into the transporting means (Budd Fig 1, 2 and 3).

Claim 6:

A method of processing cheese milk into cheese utilizing an apparatus as claimed in claim 1 inclusive to include the step of charging a quantity of particulate cheese into the column then allowing sufficient residency time therein for the particulate cheese to fuse to form a pillar of cheese, allowing the pillar of cheese to descend the column to contact the detritising means and thereby removing cheese from the pillar and simultaneously forming a further quantity of particulate cheese and depositing that quantity of particulate cheese into the transporting means (Budd Fig 1, 2 and 3).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Budd et al (US Pat 2,982,655) as applied to claim 1 above, and further in view of Jones et al (US Pat 4,044,714). Budd teaches a particulate cheese processing apparatus in which the cheese, due to its physical characteristics, produces a seal and has a hopper for transport but does not teach the use of an auger to assist in the transport from the hopper; however, Jones et al teaches the use of an auger for the transportation of a granular food product including cheese. It would have been obvious at the time of the invention to one of ordinary skill in the art to combine the two concepts.

Claim 2:

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A cheese processing apparatus as claimed in claim 1 wherein an effective seal is formed (the characteristics of cheese provide the ability to form a seal at the transition pillar and are described in Budd, et al, in col. 1, lines 56-59 and in col. 2, lines 47 to 49 which states, "...cohesive and fibrous texture towards the lower end where it achieves the required body or firmness...") **at the transition of the pillar of fused cheese to the detritusing means to substantially prevent air entering the pillar of fused cheese via the detritusing means and wherein the detritusing means deposits the particulate cheese into a sealed hopper and the transport means comprises an auger disposed in an outlet from the hopper** (the usage of an auger in conjunction with a hopper outlet is well known in the art of particulate food production and is taught by Jones et al, col. 4, 51 – 56).

12. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Budd et al (US Pat 2,982,655) as applied to claim 1 above, and further in view of Syrjanen et al (US Pat 3,707,769). Budd teaches the cheese processing apparatus but does not specifically teach salting the cheese at the inlet; however, Syrjanen, teaches the incorporation of the salting means for cheese at the inlet. In addition, in col.3, lines 29-30 Budd et al. teaches that one of the advantages of the invention is that salting can be done on a continuous basis; though Budd et al. does not teach exactly where to place the salting means, it would have been obvious to do so at the inlet of the column. It would have been obvious at the time of the invention to one of ordinary skill in the art to combine the two concepts.

Claim 3:

A cheese processing apparatus as claimed in claim 1 (Budd et al, Fig 1) **wherein salting means are incorporated into the inlet means of the tower to enable salted particulate cheese to be charged thereinto** (Syrjanen Fig 1, elements 24, 25).

13. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Budd et al (US Pat 2,982,655) as applied to claim 1 above, and further in view of Robertson et al (US Pat 3,891,783). Budd et al teaches a cheese processing apparatus and Robertson

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teaches a very similar device with multiple particulate forming locations. It would have been obvious at the time of the invention to one of ordinary skill in the art to combine the two concepts.

Claim 4:

A cheese processing apparatus as claimed in claim 1 (Budd et al, Fig 1) wherein a secondary detritusing means is provided to receive and further particulate the quantity of particulate cheese prior to being deposited into the transport means (Robertson, lines 55-66).

Conclusion

In addition to the references relied upon for prior art, the following documents are regarded as relevant to this application and have been included. WO9424850 has been included to correct for the fact that it was not included in applicants file (WO 94/02485 was apparently included by mistake). The definitions found online for auger, coagulum and detritus have been provided to document the presumed usage of these words.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRETT SPURLOCK whose telephone number is (571)270-1218. The examiner can normally be reached on Monday - Thursday: 7:30 - 5:00, 1st Friday 7:30 - 4:00, 2nd Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 571-270-1493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRETT SPURLOCK/
Examiner, Art Unit 4136
6/29/2009

/Marvin M. Lateef/
Supervisory Patent Examiner, Art Unit 4136